

Waste Isolation Pilot Plant - Waste Analysis Plan CPB Assumptions

The K-H closure contract has been modified (Contract Mod. 5) to incorporate requirements for compliance with the WIPP Waste Analysis Plan (WAP). This requirement involves the disposition of transuranic mixed waste at the WIPP. The disposition of TRM waste requires K-H to comply with the Carlsbad Area Office (CAO) Quality Assurance Program Plan (QAPP) and the WIPP Waste Acceptance Criteria (WAC), Revision 5.

Subsequent to the publication of the QAPP and WAC, Revision 5, the WIPP site was granted a Resource Conservation and Recovery Act (RCRA) permit that allows the receipt and disposal of TRM waste. However, the RCRA permit established and imposed additional requirements on WIPP that were subsequently incorporated into the WIPP WAC and the Quality Assurance Program Document (QAPD), which replaced the QAPP as a primary requirements source document. The WIPP WAC was revised and reissued as Revision 7 (WIPP WAC Revision 6 was issued briefly in draft but not in final.) to supersede Revision 5, and new requirements were added to the QAPD to incorporate the WIPP RCRA permit WAP.

Baseline Approach

Kaiser-Hill is currently negotiating a Request for Equitable Adjustment (REA) with the DOE to address the impact of the WIPP WAP on the closure contract. At this time, K-H cannot forecast the impact of the final determination for the application of this requirement to the RFCP.

The strategy incorporated in the CPB to address WIPP WAP requirements includes:

- Solid sampling re-work of all previously sampled homogeneous solids (e.g., salts ash, others, if applicable)
- Headspace gas sampling rework on all previously characterized waste
- New headspace gas sampling on pyro-oxidized residue waste not previously characterized
- Real Time Radiography (RTR) on all previously characterized waste
- Confirmatory visual examination (VE) on previously examined waste
- Non-destructive assay (NDA) of cans following solid sampling re-work

The assumptions used to support this strategy include:

- Data collected for operational visual exam during residue packaging activities will be acceptable and will not be required to be re-performed under the WIPP WAP.
- Headspace gas sampling will not be required on more than 10 percent of the waste (statistical sample estimate), commencing October 2001. The headspace gas sampling and analysis unit rate is 28/day. This rate is calculated based on the life-cycle quantity of 45,347 drums and 4,117 standard waste boxes (49,464 total containers) through headspace over 7 years @ 250 days per year. The unit cost for headspace gas sampling and analysis is \$1,258/drum based on the historical rate for the manual method in B776.

- Confirmatory VE will no longer be required after October 2001. The confirmatory VE rate is 2/day. The previously planned rate of 6/day has not been realized due to the complexity of the waste forms being examined and the contamination concerns with different waste forms. The confirmatory VE cost was \$520/drum assuming 6 drums per shift could be accomplished. However, the complexity of the waste being examined reduced the rate, however, not the resources required to accomplish the task. As a result of the rate being reduced by 1/3, the unit cost increased by a factor of 3. Therefore, the unit cost is $3 \times \$520/\text{drum} = \$1,560/\text{drum}$.
- The RTR unit rate is 16/day. This rate is based on 28,762 total containers through headspace over a period of 7 years @ 250 days per year. The RTR cost is \$204/drum.
- Residue processing activity cost impacts were not calculated on a unit cost basis; instead they are based on continued use of crew sizes and glovebox stations as planned in the baseline. No additional personnel were assumed, only the extension of planned crews.
- Building baseline schedules have been extended the same number of days that operational activities will continue in the particular facility.